Spain.—Madrid, May 14.—Terrific hailstorms, accompanied by thunder and lightning, have swept through central Spain, washing away railway tracks, inundating lowlands, and greatly damaging olive and fruit crops. The bull ring at Toledo is reported under water, and in the outskirts of Madrid trolley lines are blocked by huge quantities of sand that were washed down from the hills upon the tracks.—*New York Evening Post, May 15, 1920.*

Italy.— * * * Italy continued to suffer from disastrous drought.[1]

France.— * * * On the evening of the 25th a heavy storm, with hail and much wind, burst over Paris, unroofing houses, breaking windows, and destroying crops.[1]

Germany.—In Germany * * * there were severe thunder storms and considerable floods.[1]

[1] *The Meteorological Magazine*, June, 1920, pp. 99 and 104.

Canada.—In Ontario May was the driest month for 27 years, and the grain crops were backward, while the hay crops promised to be a partial failure. Forest fires developed in Ontario, Quebec, and New Brunswick, but fortunately the flames were checked by heavy rains at the beginning of June.[1]

Egypt.—Cairo recorded 99° F. on the 27th.[1]

New South Wales.—The wheat crop has been disastrously affected by the drought which has existed in all parts of New South Wales. It is estimated that the yield of the present season will be only 4,296,000 bushels, the smallest amount during the past 20 years. There is, in fact, an insufficient amount of wheat even for domestic consumption in Australia.—*Commerce Reports, Washington, D. C., May 26, 1920.*

[1] *The Meteorological Magazine*, June, 1920, pp. 99 and 104.

DETAILS OF THE WEATHER OF THE MONTH IN THE UNITED STATES.

CYCLONES AND ANTICYCLONES.

By R. HANSON WEIGHTMAN, Meteorologist.

Cyclones.—The number of LOWS was much greater than the average, the month being unusual on account of the great number of secondary developments. The table which follows gives the number of lows by types.

Lows.

	Alberta.	North Pacific.	South Pacific.	Northern Rocky Mountain.	Colorado.	Texas.	East Gulf.	South Atlantic.	Central.	Total.
May, 1920	5.0	0.0	0.0	2.0	7.0	1.0	2.0	2.0	0.0	19.0
Average number, 1892–1912	2.9	1.3	1.2	0.7	1.4	0.7	0.2	0.3	1.0	9.7

Anticyclones.—HIGHS were greater than the average in number, the Pacific highs being more frequent than usual, while the number of the Alberta type showed a deficit. The table hereunder shows the number of HIGHS by types.

Highs.

	North Pacific.	South Pacific.	Alberta.	Plateau and Rocky Mountain Region.	Hudson Bay.	Total.
May, 1920	3.0	2.0	2.0	1.0	1.0	9.0
Average number, 1892–1912	1.3	0.5	3.3	0.7	0.9	6.7

THE WEATHER ELEMENTS.

By P. C. DAY, Climatologist and Chief of Division.

[Weather Bureau, Washington, July 1, 1920.]

PRESSURE AND WINDS.

With the approach of summer, pressure variations in the United States and Canada become less pronounced, the high and low areas have weaker gradients than during the colder months of the year, and their drift eastward is usually slower and along more northerly paths. May, 1920, was no exception to the general rule, save that the storm areas developed generally in lower latitudes and the HIGHS persisted for longer periods in the districts from the Great Lakes eastward, than is usual for that month. As a result, the monthly distribution was somewhat different from the normal over the more eastern districts, with averages highest along the International Boundary from the Dakotas eastward and lowest along the south Atlantic and Gulf coasts, the reverse of the normal distribution. West of the Great Plains the average pressure distribution was maintained along the usual lines, save that the high-pressure area over the North Pacific coast was more fully developed and the permanent warm-season depression over the lower Colorado River Valley was deeper than usual.

In the general absence of well-developed storm areas, the winds were not unusually high at any point and few stations reported velocities above 50 miles per hour, and severe local storms were much less frequent than during the two preceding months. The highest wind of the month along the middle and south Atlantic coasts was experienced on the 1st and 2d, and the only severe tornado of the month occurred on the 2d in Oklahoma, a full description of which appears in another portion of this issue.

The persistence of high pressure over the Great Lakes and eastward caused cool northerly winds during much of the month over the districts to eastward of the Mississippi River, this being particularly the case over the southeastern States. Between the Mississippi River and the Rocky Mountains the winds were mostly from the south. Along the Pacific coast they were generally from west to northwest.

TEMPERATURE.

The month opened with moderate temperatures in most sections of the country, but by the morning of the 3rd abnormally cold weather overspread the northern districts, with heavy to killing frosts in the Lake region and over the upper Ohio Valley, and temperatures were below freezing in the higher elevations of the Rocky Mountains. About the middle of the first decade increasing pressure over the Great Lakes caused a further lowering of the temperature in eastern districts and heavy to killing frosts were reported from the adjacent regions. Considerably warmer weather prevailed during the latter part of the decade in the north-central border districts, but moderately cold weather for the season continued in the Eastern States until near the close, when much warmer weather prevailed over that area, and by that time temperatures had gradually risen to above the seasonal average in nearly all sections of the country except in the far West.